DATA MANAGEMENT SYSTEM FOR SECRETIVE MARSHBIRDS
CONCEPT PAPER
Bruce Peterjohn, January 2006

During 2004-2006, the USGS Patuxent Wildlife Research Center (PWRC) is assisting the US Fish and Wildlife Service (USFWS) Refuge System in developing biological databases for their data management system. This project is supported by SSP funding received from three USFWS regions. The first biological database developed through these efforts was a modification and update to the National Point Count database system to meet the specific needs of point count surveys currently conducted on Refuges. Beta-testing for this new system was recently completed and it should become fully operational by late February 2006.

USFWS has decided that developing a data management system for secretive marshbird surveys conducted on Refuges is the next priority system to be created by this project. The data management system for a marshbird monitoring program within the USFWS Refuges system will meet requirements defined by the USFWS marshbird User Acceptance Team (UAT). This UAT has recently initiated a series of conference calls to define these requirements including the specific protocols to be implemented on Refuge surveys. If the survey protocols followed by marshbird surveys on Refuges are similar to those of the continental marshbird monitoring program, then this data management system will also support the needs of the continental marshbird monitoring program.

This marshbird survey data management system will meet the following general requirements:

1) A web-based data entry system with imbedded Quality Assurance/Quality Control features to minimize potential data entry errors.
2) A data management system allowing biologists to maintain responsibility for data they collect or for regional programs they coordinate.
3) A web-based data retrieval system enabling easy access to data in user-friendly formats.
4) A data management system accessible to a substantial number of simultaneous users.
5) A marshbird data management system meeting all applicable security requirements.

Detailed project requirements are being developed through discussions with the Refuges UAT and Courtney Conway (see timeframe described below). A document describing these specific requirements will be produced once these discussions are completed.

Because marshbird surveys following the Conway (2005) protocols are point count data collected using a play-back methodology, these data can be accommodated by modifying the current Point Count database system and do not require development of an entirely new data management system specific for marshbirds. The advantages to this approach include the fact that this data management system already exists so that development of

the marshbird data management system can occur more rapidly. Additionally, there are considerable efficiencies gained if only one data management system is maintained rather than maintaining separate marshbird and point count systems. Using this approach, the following timeframe is believed to be reasonable for developing this marshbird data management system:

1) Define system requirements (January-March 2006).
2) Make necessary modifications to existing Point Count database system and develop initial web access and retrieval pages (March-June 2006).
3) Initial version of marshbird data management system available for usability testing (June 2006).
4) Revise system based on comments received during usability testing. Beta version available for testing (July/August 2006).
5) Functional data management system available for use by September/October 2006 to accommodate data collected during the 2006 field season. The intent is to have all 2006 data entered into the new data management system via the Internet.
6) Importation of existing marshbird survey data occurs during this period, coordinating these efforts with Courtney Conway who will be responsible for entry of all data from 2005 or earlier years provided as hard copy. Data entry and importation should be completed when the data management system becomes fully operational.